

## **LAN Connectivity**

Based on the information provided by EDS, we interpret this to refer to desktop connectivity to the LAN wall port. As such, the Help Desk administers and supports this effort.

### **Troubleshooting**

Three tiers of network professional expertise are coordinated at each Network Operation Center (NOC) for troubleshooting network services, with escalation procedures to Subject Matter Experts (SMEs) and vendors. Using a comprehensive suite of NMS tools, including NetView and CiscoWorks, these professionals have the ability and BAN/LAN visibility to proactively evaluate and diagnose network performance and/or hardware systemic issues. The objective is to significantly reduce Mean-Time-To-Repairs (MTTRs) and the impact on customer services, while meeting and maintaining Service Level Agreements (SLAs).

## **Change Management**

Change management of the NMCI Enterprise Network is managed through the associated NOC. The W!NGS NOC Manager employs the EDS NOC Manager's implementation of the established enterprise-wide change management system along with the W!NGS Service Request Management (SRM) Maintenance Process. This details the process and information required for the execution of any changes in the network, thus minimizing intrusion and customer downtime. The change management system allows standards, security patches, and technology updates to be reviewed by a team of professionals before they are implemented on the NMCI Enterprise Network. Changes, additions, deletions, and all corrective and preventative maintenance to the production environment must be coordinated with the NOC and requires adherence to the W!NGS Service Request Management (SRM) Process to ensure implementation plans, test plans, and recovery plans have been reviewed and accepted.

## **Networking Equipment Configuration**

Configuration management of active devices in the production environment is the responsibility of the respective NOC. The W!NGS SRM Process will be followed to ensure accuracy and completeness for change configuration execution, testing, and recovery.

#### Break/Fix

Break/fix and emergency maintenance situations and concerns in the production environment are the responsibility of the respective NOC. Communication must be established with the respective NOC, where troubleshooting and escalation procedures will be followed.

## **Network Port Usage Management**

Network Port Usage Management Reports are generated monthly to identify ports on network devices that have been inactive for the past month. The data used for these reports is extracted directly from the network devices using PERL scripts, which reside on the NetView Server.

1



This data is then imported into a pre-defined database, where Microsoft Access is used to generate the report. The Network Port Usage Management Reports contain two reports, the Port Usage Management Summary Report and the Port Usage Management Detailed Report. The Port Usage Management Summary Report identifies the following:

- Base
- Total number of ports per network device type
- Total number of inactive ports per network device type
- Percentage of inactive ports per network device type

The Port Usage Management Detailed Report identifies the following details:

- Base
- Network Device Name
- Network Device IP Address
- Network Device Port Number Reference
- NMS Operations: Port Usage Management Report Procedure (Est. QMS entry 2003Sep04)

### Requirements

Requirements for Network Port Usage Management are to identify network device ports that are no longer being used and are inactive. Consequently, this information will be used to determine what ports could be deactivated at the network device, to prevent any unauthorized connections. Port usage management will only be implemented on managed network devices capable of reporting port activity.

#### **Activation**

By default, upon initial installation of a network device, port activity statistics are activated. Once a network device is managed and operational, it is available for port usage management. Network Port Usage Management Reports are generated on the last day of the month, and once the reports have been generated, counters are reset on all managed network devices, activating the next reporting cycle.

#### Administration

NMS Operations executes the scripts monthly, generates the monthly Network Port Usage Management Reports, e-mails the reports to the designated personnel and resets all network device port utilization counts. A senior NMS engineer who developed the script, will do initial administration of the reports for the first three months, analyzing execution issues and introducing the detailed procedure to other NMS Operations staff. By the October run, this will be completely administered by assigned and scheduled NMS Operations staff. Future plans are report enhancement and possible process automation.

#### **DHCP**

Managed by EDS.



# DNS

Managed by EDS.

# Proxy/Cache

Managed by EDS.

# **Directory Services**

Managed by EDS.